

an opposing substrate comprising an opposing electrode,  
wherein the liquid crystal display device is characterized as:  
performing display by optically compensated bend mode; and  
conducting voltage gray scale method and time ratio gray scale at the same time by using  
n bit out of m bit digital data as information for voltage gray scale, and ~~only~~ (m-n) bit as  
information for time ratio gray scale, wherein m and n are positive numbers equal to or greater  
than 2 and satisfy  $m > n$ .

3. (Currently Amended) A liquid crystal display device comprising:  
an active matrix substrate comprising an active matrix circuit in which a plurality of pixel  
TFTs are disposed in a matrix, and a source driver and a gate driver that drive the active matrix  
circuit;  
an opposing substrate comprising an opposing electrode; and  
a circuit which converts m bit digital video data inputted from the external into n bit  
digital video data and provides the n bit digital video data to the source driver, wherein m and n  
are positive numbers equal to or greater than 2 and satisfy  $m > n$ ,  
wherein the liquid crystal display device is characterized as:  
forming an image for one frame image comprising  $2^{m-n}$  subframes by performing voltage  
gray scale method and time ratio gray scale that uses ~~only~~ (m-n) bit at the same time, and;  
applying voltage which makes an orientation of liquid crystal to a bend orientation on  
starting display of the  $2^{m-n}$  subframes.

5 (Currently Amended) A liquid crystal display device comprising:

an active matrix substrate comprising an active matrix circuit in which a plurality of pixel TFTs are disposed in a matrix, and a source driver and a gate driver that drive the active matrix circuit; and

a circuit which converts m bit digital video data inputted from the external into n bit digital video data and provides the n bit digital video data to the source driver, wherein m and n are positive numbers equal to or greater than 2 and satisfy  $m > n$ ,

wherein the liquid crystal display device is characterized as:

forming an image for one frame image comprising  $2^{m-n}$  subframes by performing voltage gray scale method and time ratio gray scale that uses only  $(m-n)$  bit at the same time;

applying voltage which makes an orientation of liquid crystal to a bend orientation on starting display of the frame which comprises  $2^{m-n}$  subframes.

55. (Currently Amended) A liquid crystal display device comprising:

a first substrate;

a plurality of pixel thin film transistors disposed in a matrix form over the substrate;

a source driver operationally connected to said plurality of pixel thin film transistors;

an opposing substrate provided with an opposing electrode; and

a liquid crystal layer interposed between the first substrate and the opposing electrode, said liquid crystal layer having a p cell structure; and

a digital video data time ratio gray scale processing circuit, operationally connected to said source driver,

wherein a m bit digital video data inputted to the digital video data time ratio gray scale processing circuit is converted into an n bit digital video data for voltage gray scale while only  $(m - n)$  bit data of the m bit digital video data is used for time ratio gray scale.

57. (Currently Amended) A method of driving a liquid crystal display device comprising:  
an active matrix substrate comprising an active matrix circuit in which a plurality of pixel  
TFTs are disposed in a matrix, and a source driver; and a gate driver that drive the active matrix  
circuit; and  
an opposing substrate comprising an opposing electrode;  
wherein the method of driving the liquid crystal display device is characterized as:  
performing display by optically compensated bend mode, and  
conducting voltage gray scale method and time ratio gray scale at the same time by using  
n bit out of m bit digital data as information for voltage gray scale, and ~~only~~ (m-n) bit as  
information for time ratio gray scale, wherein m and n are positive numbers equal to or greater  
than 2 and satisfy m>n.

58. (Currently Amended) A method of driving a liquid crystal display device comprising:  
an active matrix substrate comprising an active matrix circuit in which a plurality of pixel  
TFTs are disposed in a matrix, and a source driver and a gate driver that drive the active matrix  
circuit;  
an opposing substrate comprising an opposing electrode; and  
a circuit which converts m bit digital video data inputted from the external into n bit  
digital video data and provides the n bit digital video data to the source driver, wherein m and n  
are positive numbers equal to or greater than 2 and satisfy m>n,  
wherein the method of the liquid crystal display device is characterized as:  
forming an image for one frame image comprising  $2^{m-n}$  subframes by performing voltage  
gray scale method and time ratio gray scale that uses ~~only~~ (m-n) bit at the same time, and;

applying voltage which makes an orientation of liquid crystal to a bend orientation on starting display of the  $2^{m-n}$  subframes.

Please add new claims 59-68 to read as follows:

59. (New) The liquid crystal display device according to claim 1 wherein said active matrix substrate further comprises an opposing electrode driving circuit.

60. (New) The liquid crystal display device according to claim 3 wherein said active matrix substrate further comprises an opposing electrode driving circuit.

61. (New) The liquid crystal display device according to claim 5 wherein said active matrix substrate further comprises an opposing electrode driving circuit.

62. (New) The liquid crystal display device according to claim 55 wherein an opposing electrode driving circuit is provided at the substrate.

63. (New) The method of driving the liquid crystal display device according to claim 57 wherein said active matrix substrate further comprises an opposing electrode driving circuit.

64. (New) The method of driving the liquid crystal display device according to claim 58 wherein said active matrix substrate further comprises an opposing electrode driving circuit.

65. (New) An electronic device having the liquid crystal display device according to claim 1, wherein said electronic device is selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a portable book, a player using a recording medium, a digital camera, and a display.

66. (New) An electronic device having the liquid crystal display device according to claim 3, wherein said electronic device is selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a portable book, a player using a recording medium, a digital camera, and a display.

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67. (New) An electronic device having the liquid crystal display device according to claim 5, wherein said electronic device is selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a portable book, a player using a recording medium, a digital camera, and a display.

68. (New) An electronic device having the liquid crystal display device according to claim 55, wherein said electronic device is selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a portable book, a player using a recording medium, a digital camera, and a display.

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